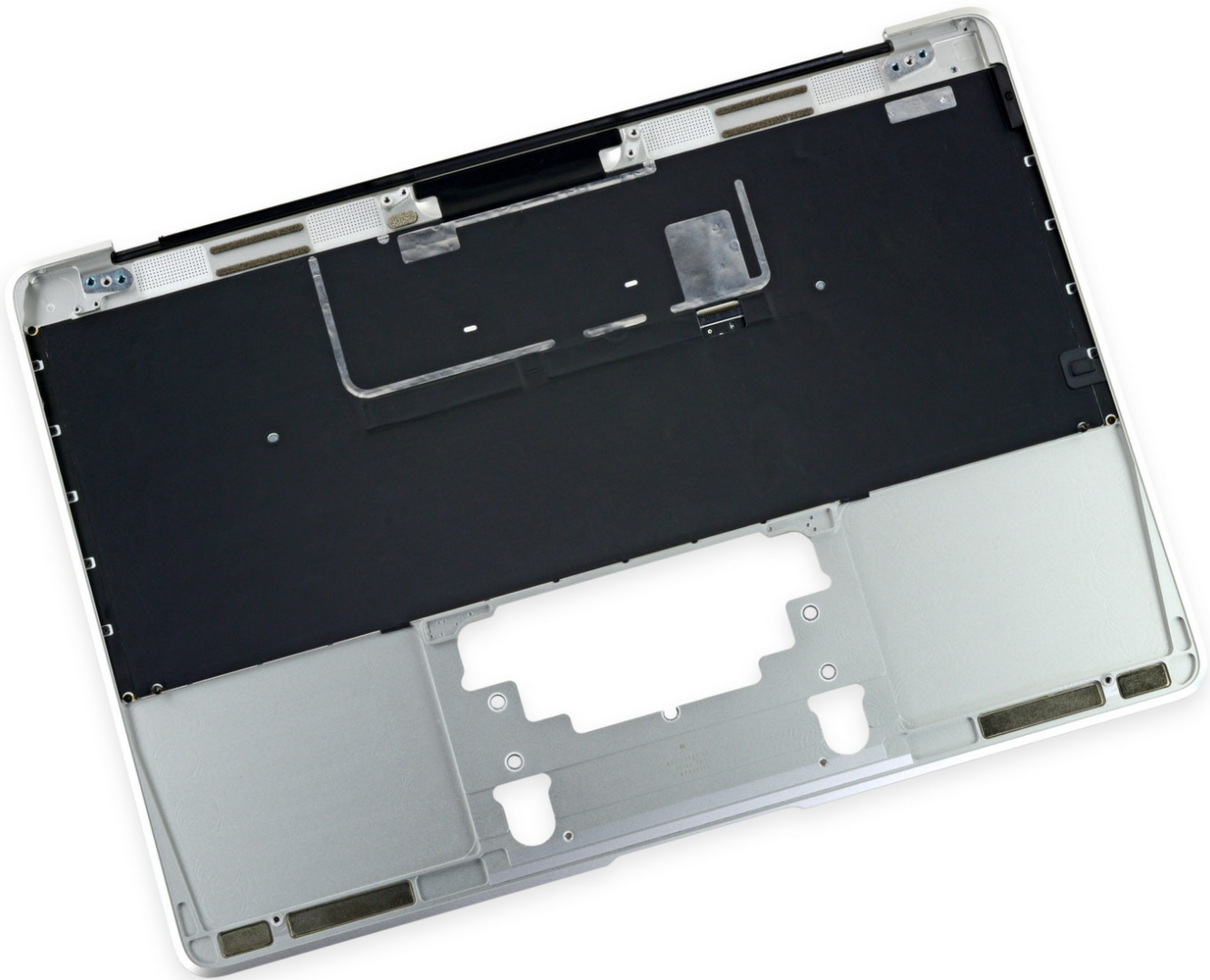




Retina MacBook 2015 Upper Case Assembly Replacement

Replace the upper case assembly on the Retina MacBook 2015.

Written By: Geoff Wacker



INTRODUCTION

The upper case assembly includes the keyboard. Use this guide to replace the entire case/keyboard assembly as a single unit.



TOOLS:

- [iOpener](#) (1)
- [iPad Battery Isolation Pick](#) (1)
- [P5 Pentalobe Screwdriver Retina MacBook Pro and Air](#) (1)
- [Spudger](#) (1)
- [T5 Torx Screwdriver](#) (1)
- [Tri-point Y00 Screwdriver](#) (1)
- [Tweezers](#) (1)
- [Probe and Pick Set](#) (1)
- [T4 Torx Screwdriver](#) (1)




PARTS:

- [MacBook 12" Retina \(Early 2015\) Upper Case with Keyboard](#) (1)
- [MacBook 12" Retina \(Early 2015\) Keyboard Ribbon Cable](#) (1)
- [MacBook 12" Retina \(Early 2016 Early 2016\) Lower Case Screw Set](#) (1)

Step 1 — Retina MacBook 2015 Lower Case Assembly Removal



 Before proceeding, power down your MacBook. Close the display and lay it on a soft surface, top-side down.

- Remove the following eight screws securing the lower case:
 - Two 1.8 mm P5 Pentalobe screws
 - Four 2.9 mm P5 Pentalobe screws
 - Two 6.1 mm P5 Pentalobe screws

Step 2



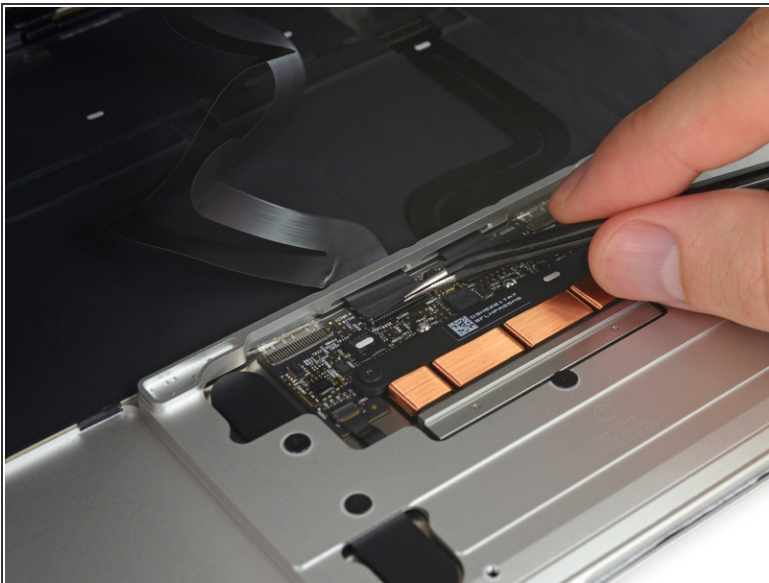
- Wedge your fingers between the upper case and the lower case, starting from the rear of the MacBook between the hinges.
- ⚠ Lift the lower case only slightly to avoid damaging the cables that connect the lower case to the upper case.
- Keeping a firm grip, lift steadily until the lower case separates slightly from the upper case.
- ⓘ You may experience a lot of resistance when lifting the lower case. If necessary, slide a plastic opening tool down the side edges of the lower case to pop the two hidden retaining clips free.

Step 3



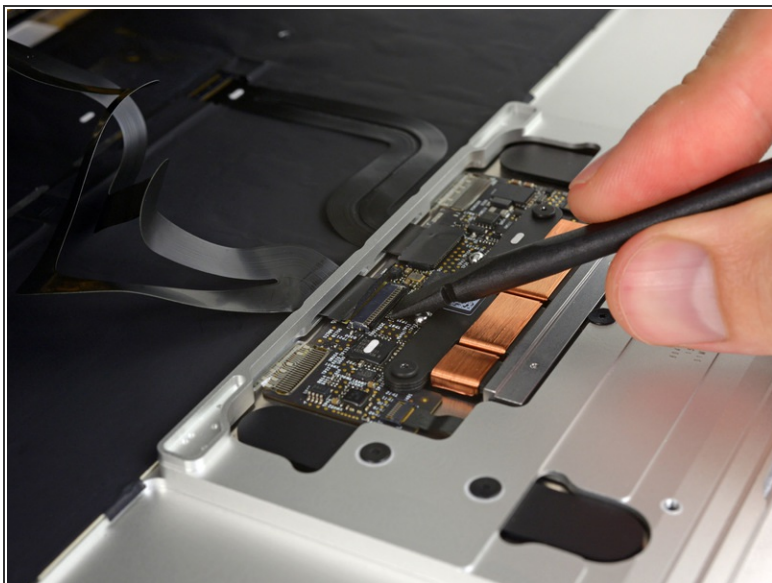
- Rotate the MacBook 180° and gently flip open the lower case from the front.
 - Open the lower case to an angle of about 45°.
- ⚠ Take care not to damage the ribbon cables that still attach the lower case to the MacBook.

Step 4



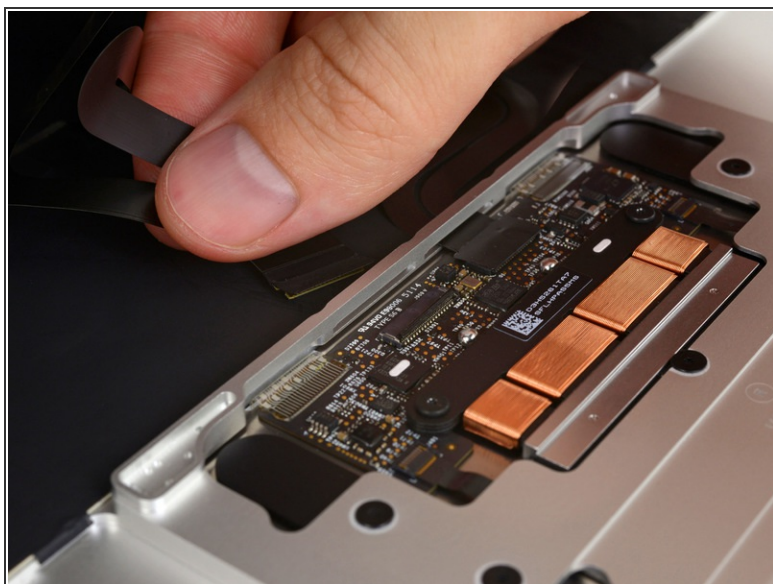
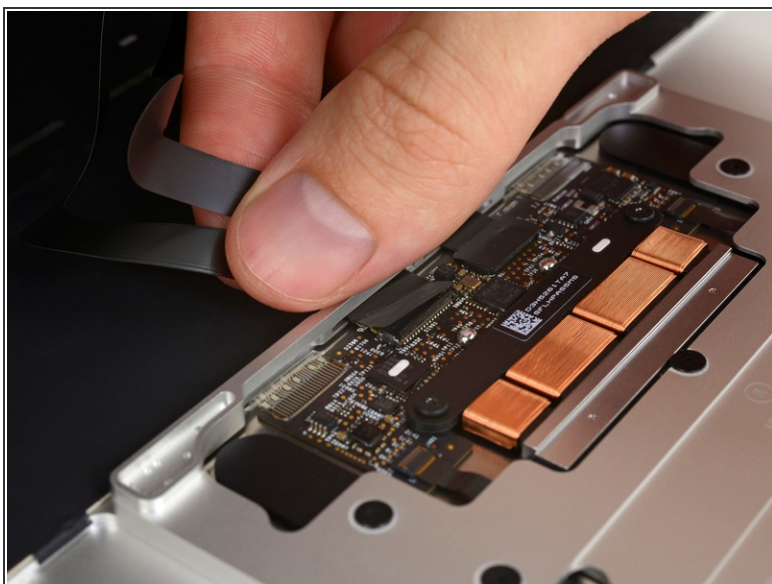
- Use tweezers to peel back the tape covering the trackpad cable ZIF connector.

Step 5



- Use a spudger to carefully flip up the retaining flap on the trackpad cable ZIF connector.

Step 6



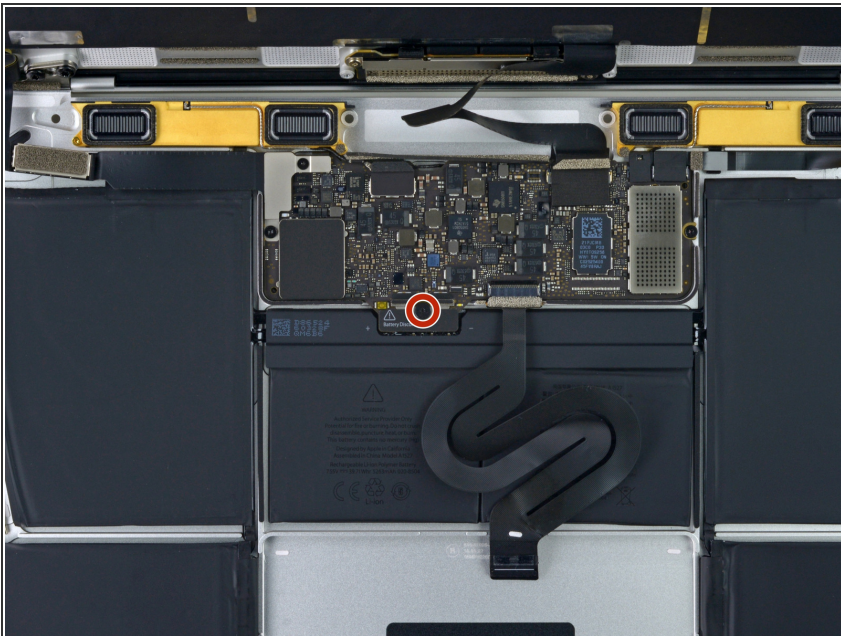
- Disconnect the trackpad ribbon cable from the trackpad by pulling it gently through its slot in the frame.

Step 7



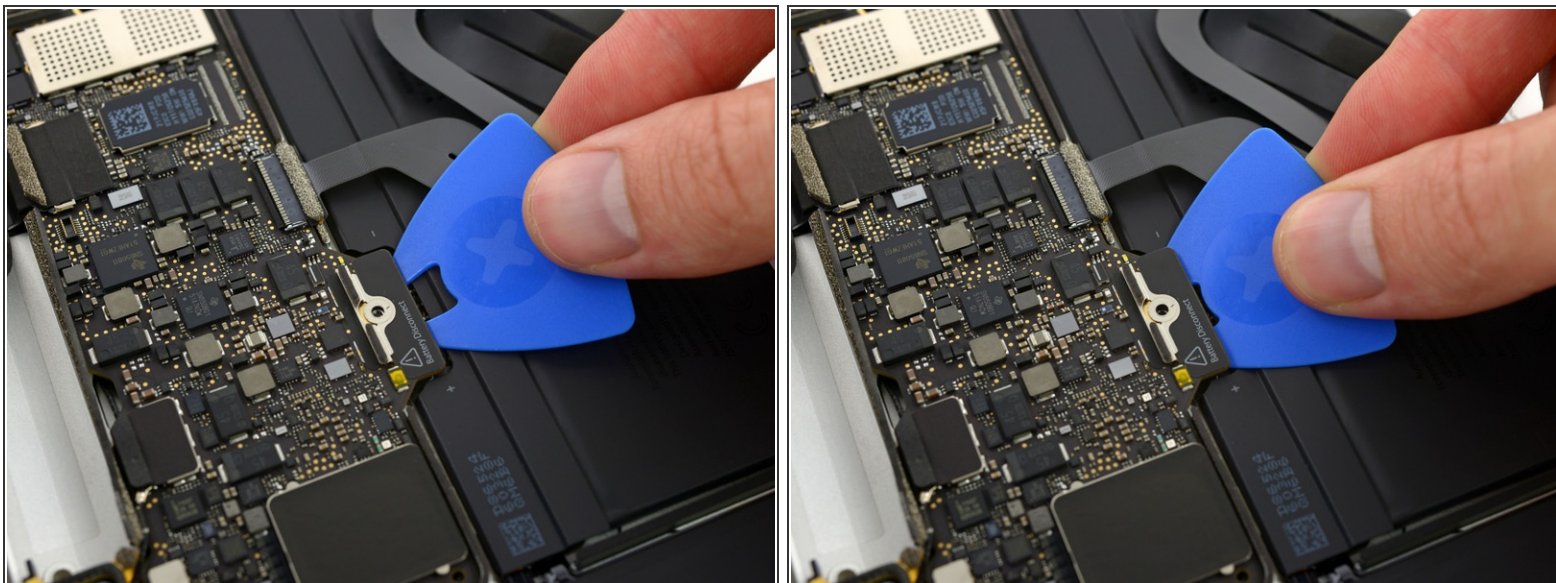
- Carefully turn the MacBook over, so that the lower case lays flat.
- Raise the upper case/display assembly to about a 90-100° angle, or use something to prop it up so you don't have to hold it.
- ❗ It's possible to open the MacBook all the way and lay both sides down flat, but this may put undue strain on the remaining connecting cables.

Step 8



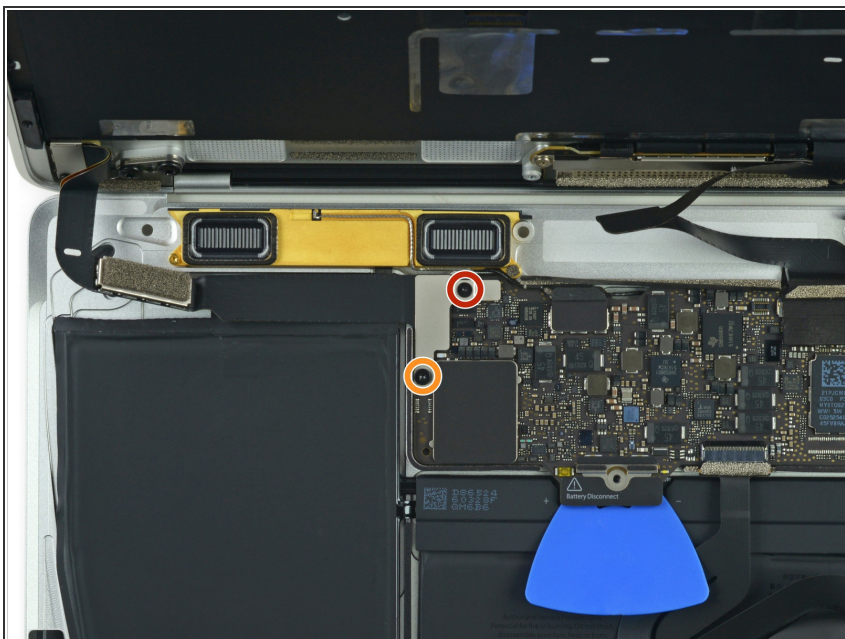
- Remove the single 2.9 mm T5 Torx screw securing the battery connector to the logic board.

Step 9



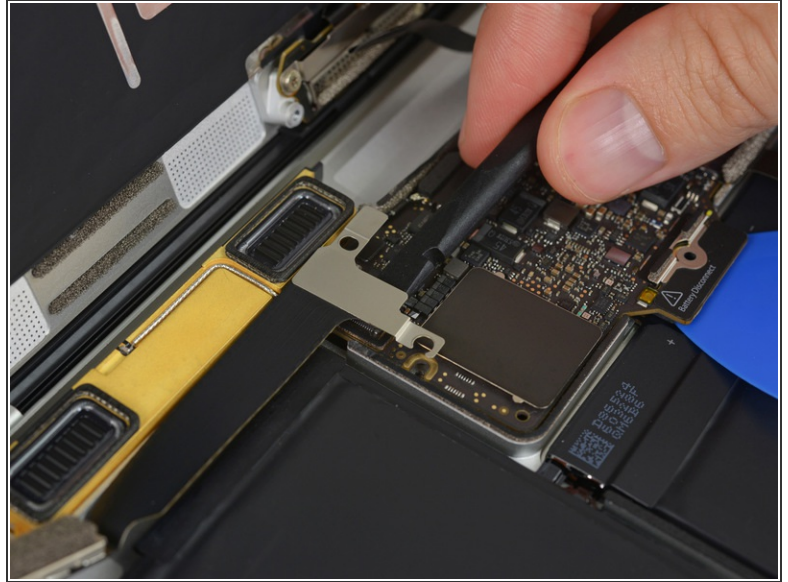
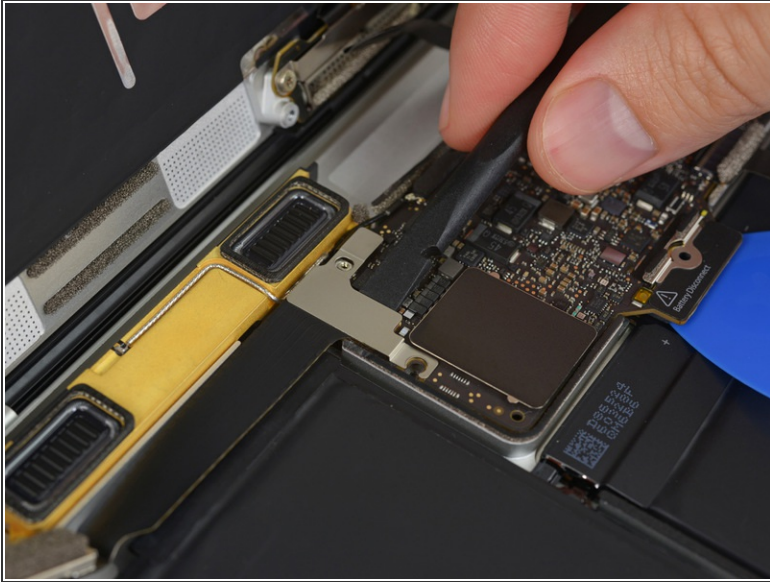
- Disconnect the battery by inserting a [battery isolation pick](#) between the logic board and the battery connector.

Step 10



- Remove the two screws securing the USB-C port cable bracket:
 - 1.1 mm Tri-point Y00 screw
 - 3.5 mm T5 Torx screw

Step 11



- Use the flat end of a spudger to disconnect the USB-C port cable bracket by prying it straight up from the logic board.

Step 12



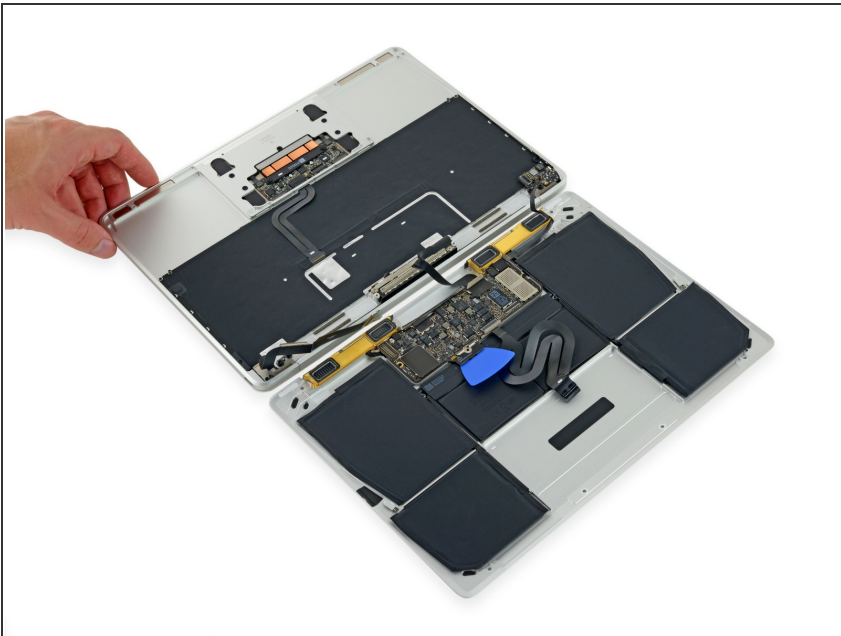
- Use a spudger to flip open the retaining flap on the audio jack board cable ZIF connector.

Step 13



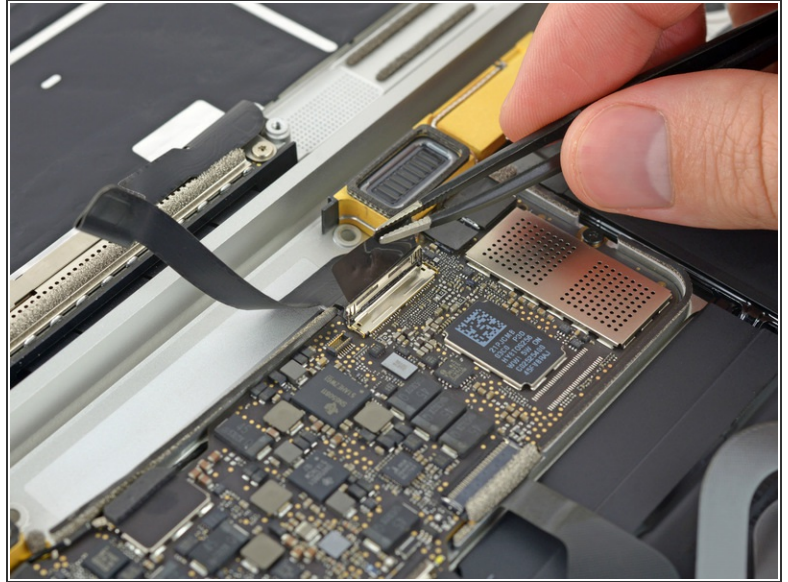
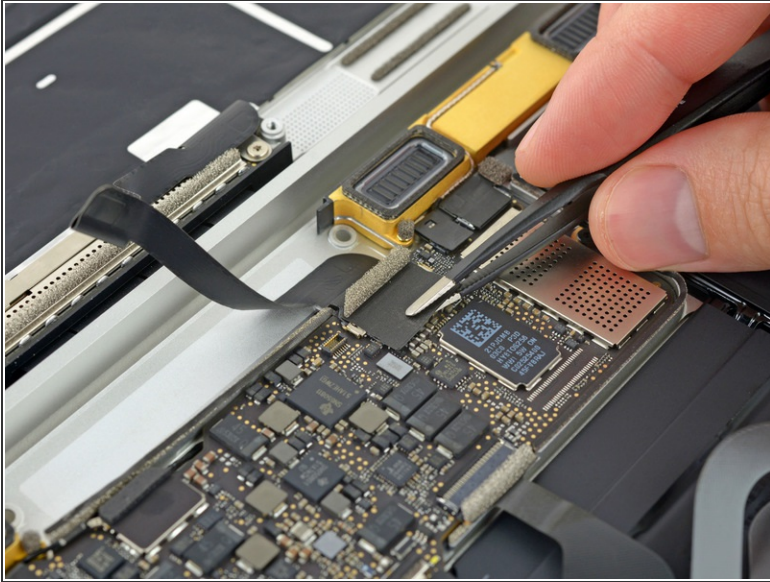
- Disconnect the audio jack board ribbon cable by pulling it straight back out of the ZIF connector.
- ★ During reassembly, orient the ribbon cable so that the side with the white stripe faces you, as shown.

Step 14



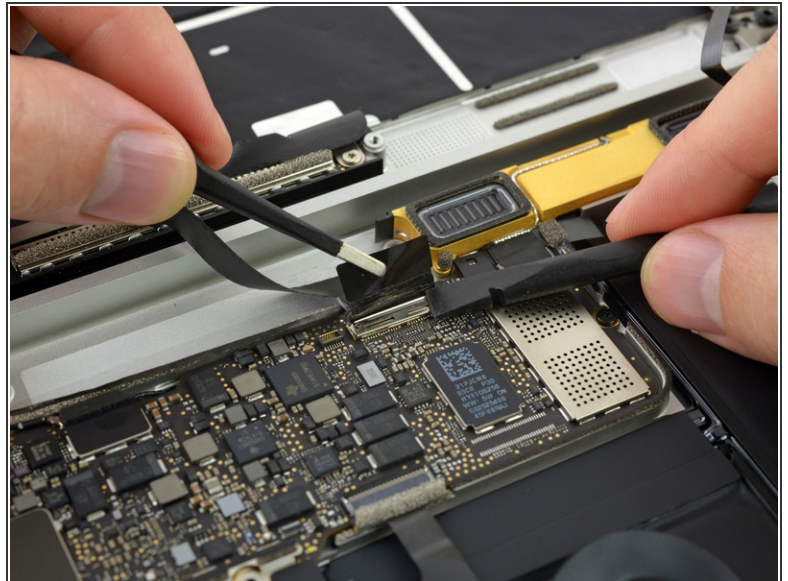
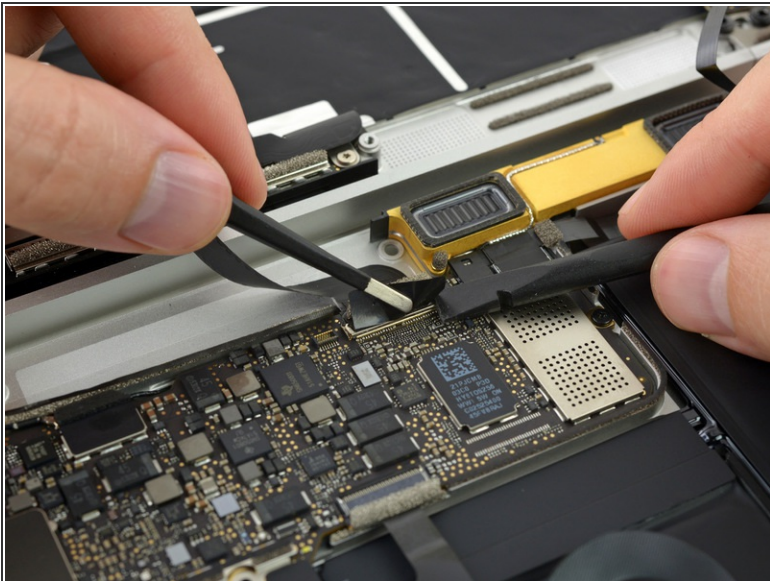
- Open the MacBook the rest of the way and lay the two halves down flat, being careful of the ribbon cable that still connects them.

Step 15



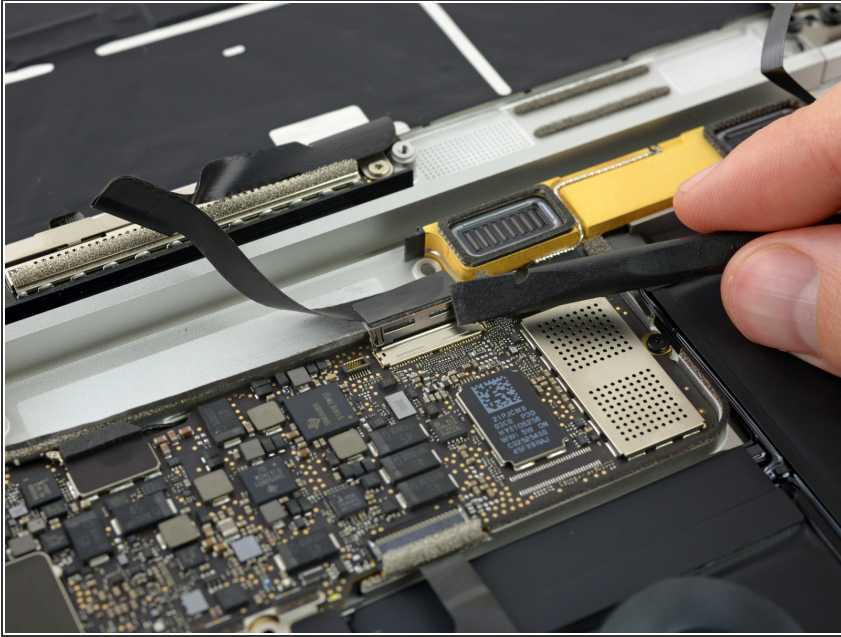
- Use tweezers to peel back the tape covering the display cable connector.

Step 16



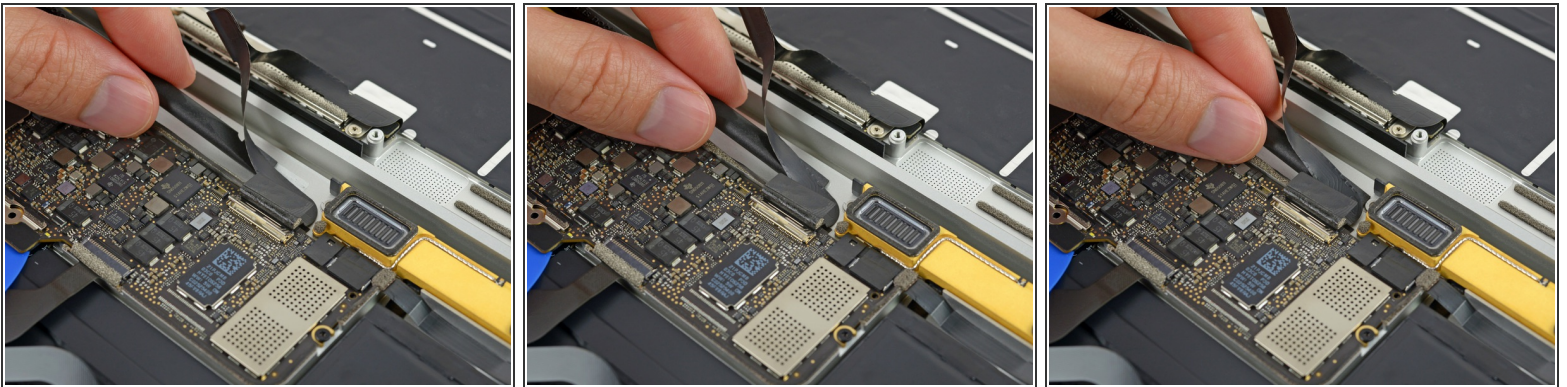
- i** It's possible the metal retaining flap on the display cable connector may flip open, remaining stuck to the tape.
- If so, use the flat end of a spudger to hold down the retaining flap while peeling the tape away with the tweezers.

Step 17



- Use the flat end of a spudger to flip open the retaining flap on the display cable connector.
- Try to keep it clear of the tape, or it may re-adhere and make cable removal difficult.

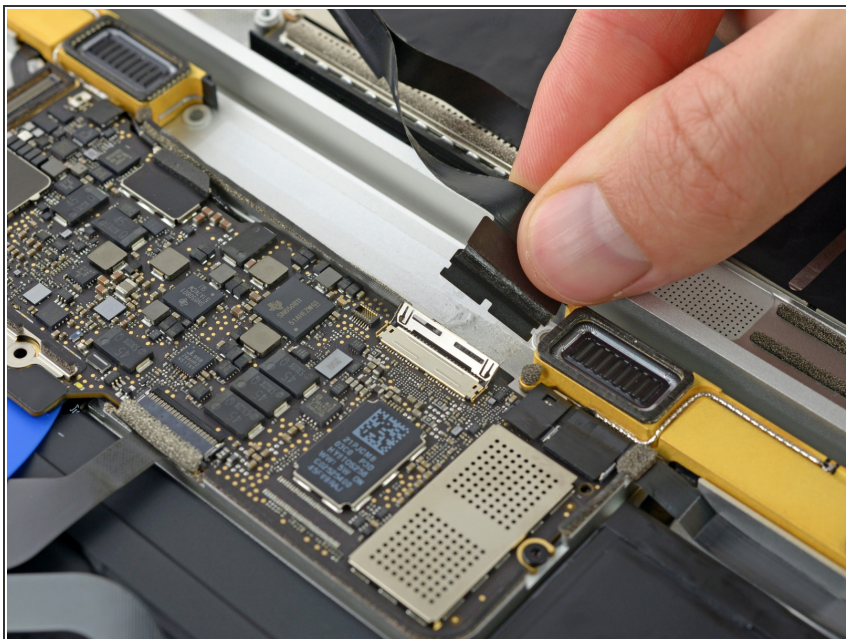
Step 18



- Carefully slide the flat end of a spudger underneath the display cable to separate the adhesive holding it to the lower case.

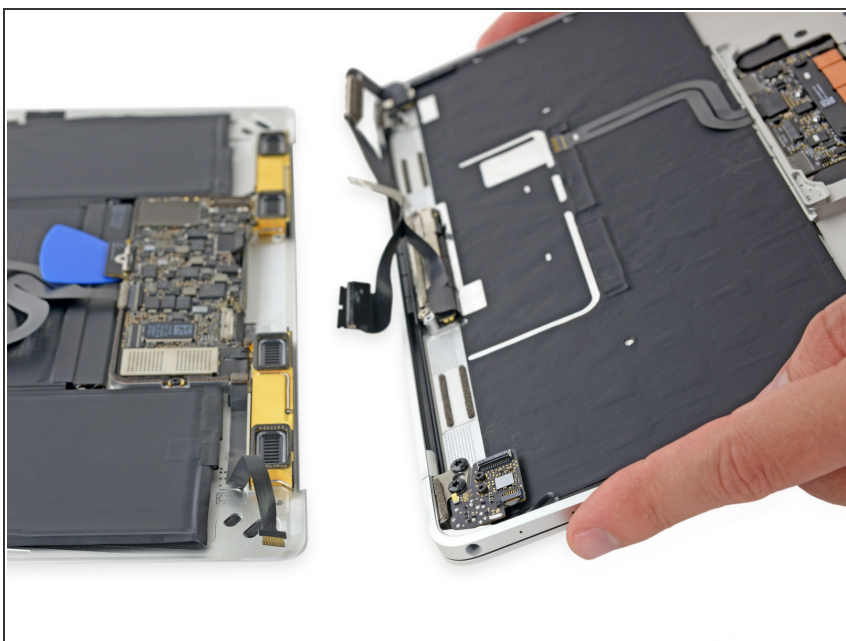
⚠ Take care not to damage the cable. If the adhesive is very strong, heat the case directly beneath the cable with an [iOpener](#) to soften the adhesive, and then try again.

Step 19



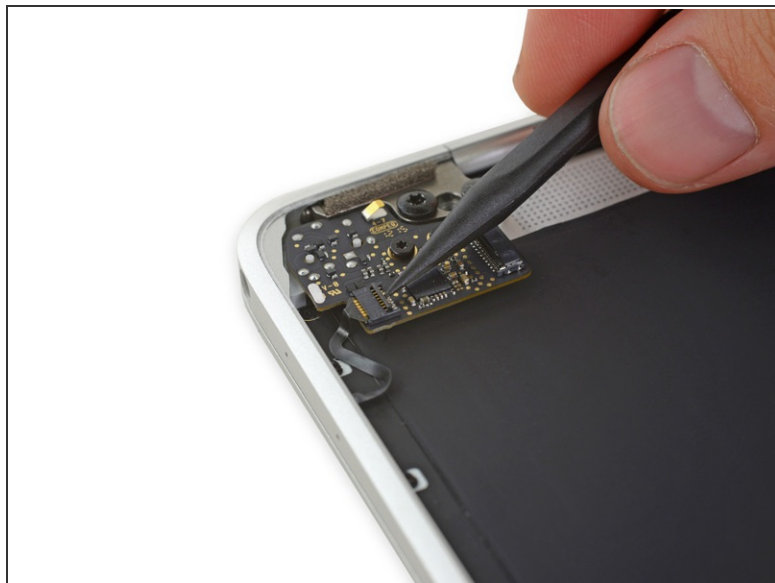
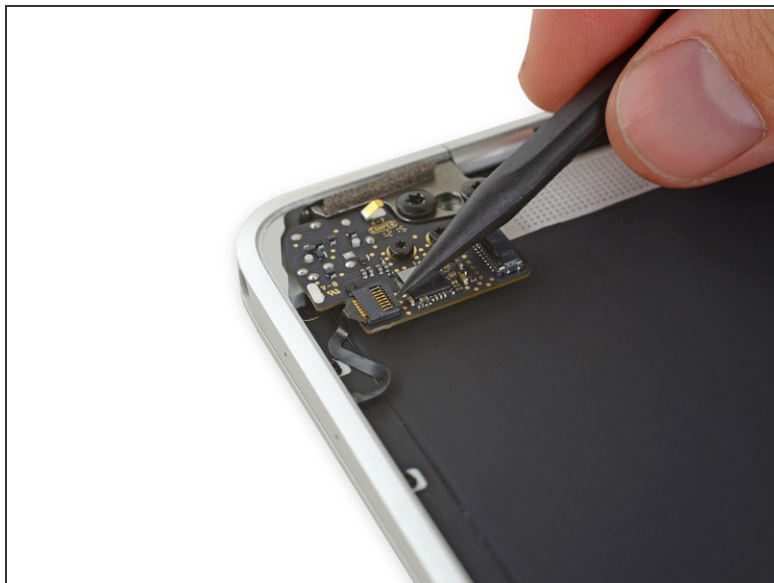
- Disconnect the display cable by gently pulling it straight out of its connector.

Step 20



- Separate the upper case assembly from the lower case assembly.

Step 21 — Audio Jack Board



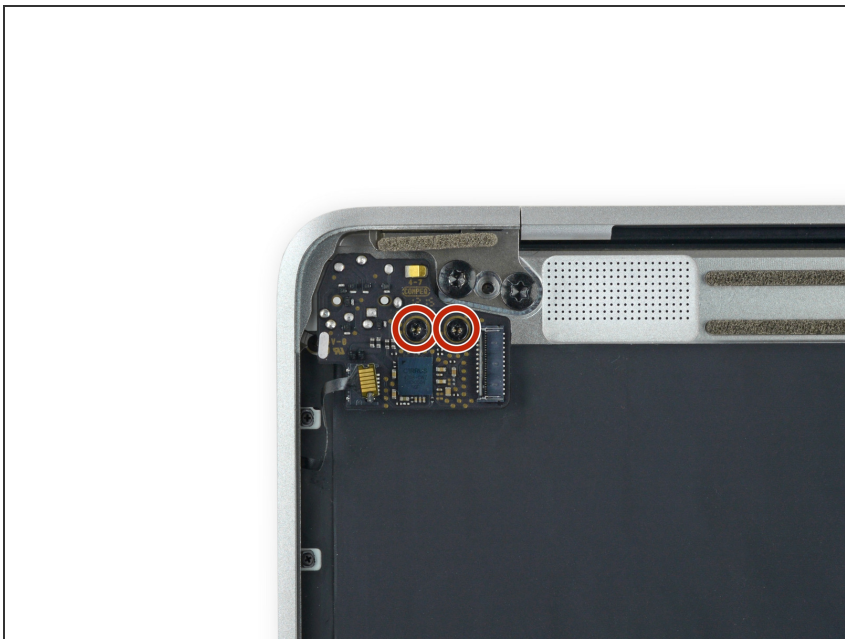
- Use a spudger to flip open the ZIF connector retaining flap for the dual microphone assembly ribbon cable.

Step 22



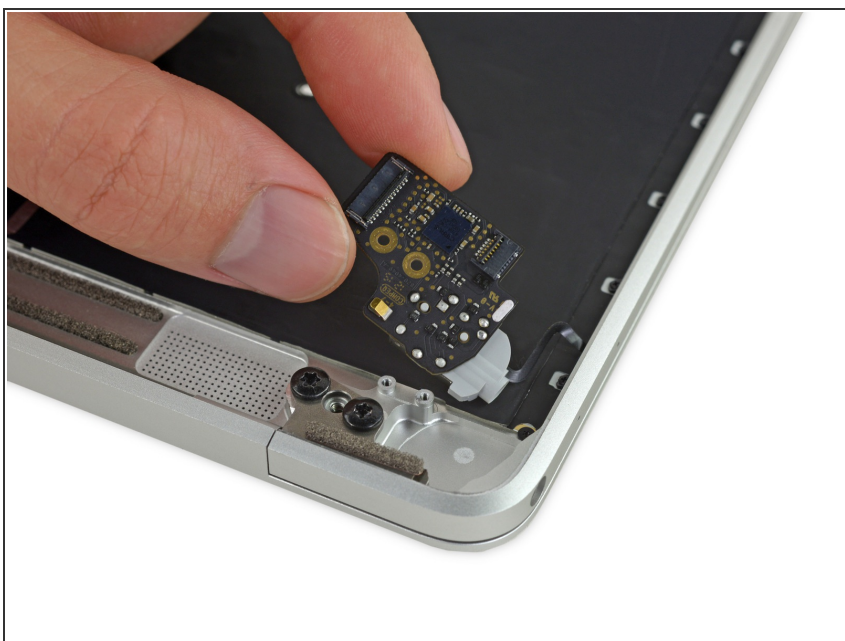
- Use tweezers to pull the microphone assembly ribbon cable free of its connector.

Step 23



- Remove the two 3.2 mm T5 Torx screws securing the audio jack board to the case.

Step 24



- Remove the audio jack board.

Step 25 — Dual Microphone Assembly



- [Prepare an iOpener](#) and apply heat to the upper case directly behind the microphone assembly.

Step 26



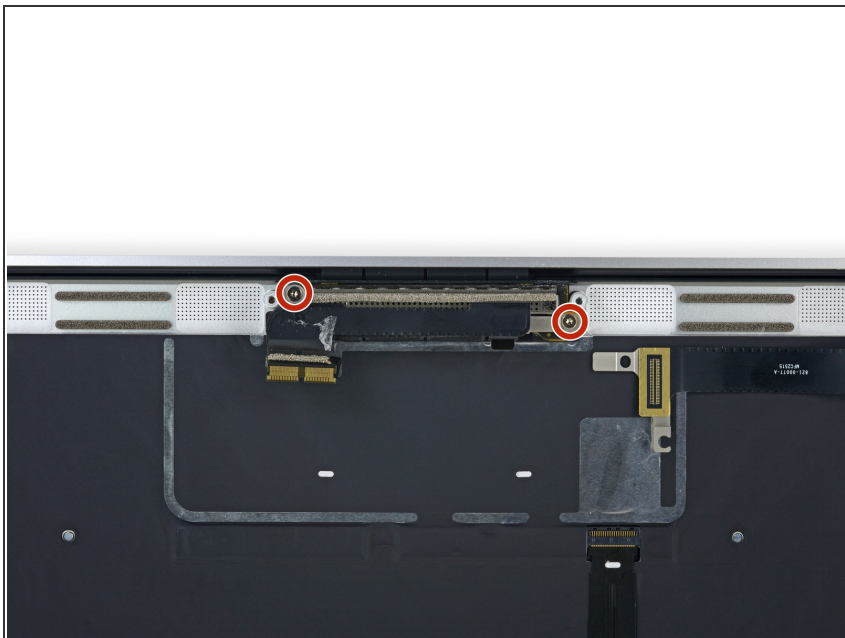
- Use a fine-tip probe or pick to gently peel the dual microphone assembly away from the case.

Step 27



- Remove the dual microphone assembly.

Step 28 — Display Assembly



- Remove the two 3.3 mm T5 Torx screws securing the display cable assembly.

Step 29



- Remove the single 4.3 mm Phillips #00 screw securing the USB-C port ribbon cable.

Step 30



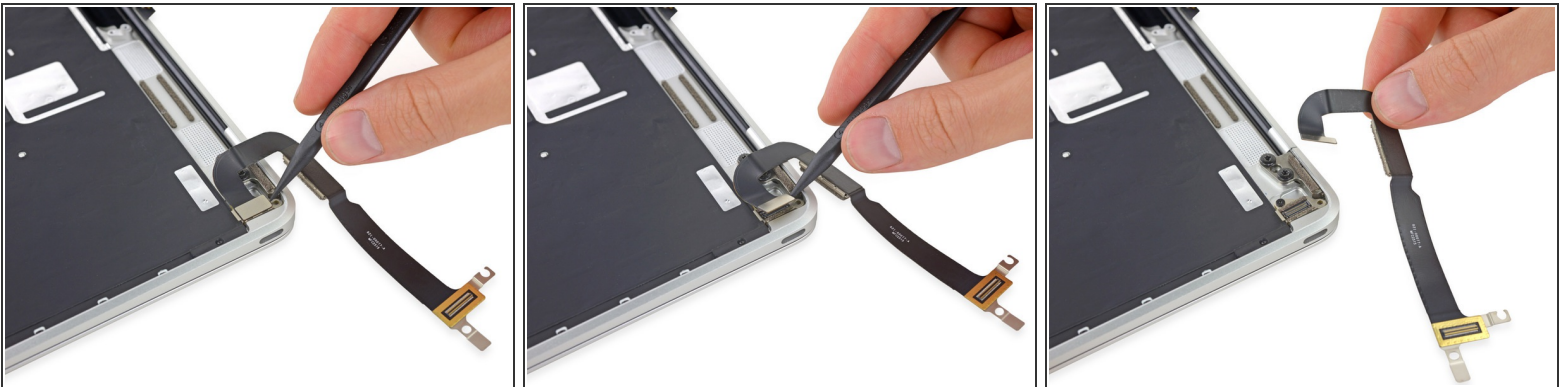
- Unfold the USB-C port ribbon cable until it lays flat, allowing access to the bracket beneath.

Step 31



- Lift and remove the metal bracket securing the USB-C port ribbon cable connector.
- ☑ During reassembly, be sure the metal tab on the USB-C connector board slides through the slit on the metal bracket.

Step 32



- Use a spudger to disconnect the USB-C port ribbon cable by prying the connector straight up.
 - Pry from the side nearest the back edge of the MacBook.
- Remove the ribbon cable.

Step 33



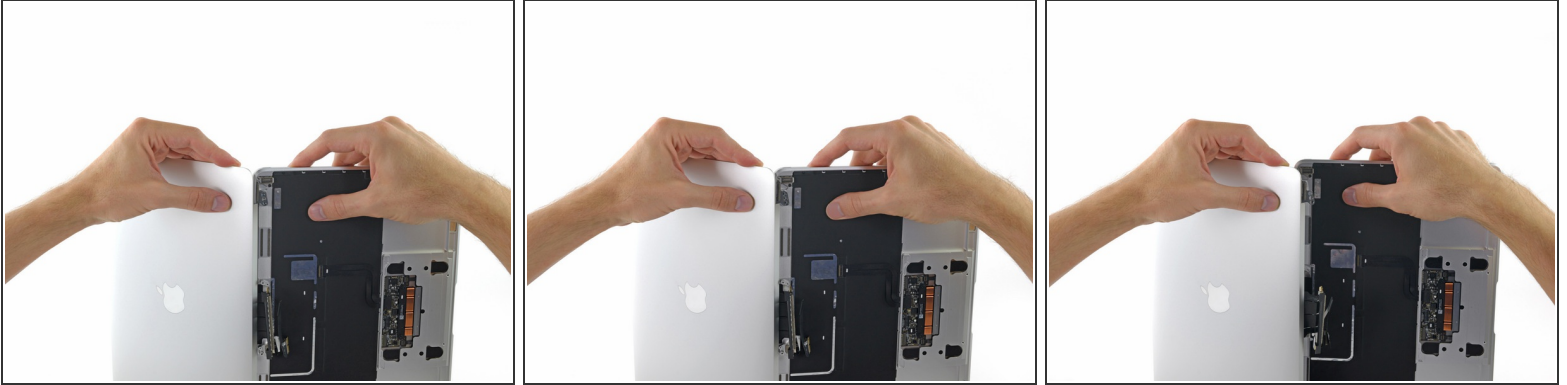
- Fully open the display.
- Set the MacBook down on its right edge with the display facing away from you, as shown.

Step 34



- Remove the four 4.8 mm T9 Torx screws securing the display hinges.

Step 35



- Holding the display assembly with one hand and the upper case with the other, push them together slightly to move the hinges out of their recesses in the the upper case.
 - ⓘ There are only a few millimeters of play between the hinges and the case, so you won't need to push far.
- Push the upper case forward while pulling back gently on the display.
- Once the two display hinges have cleared the upper case, remove the display and set it aside.

Step 36 — USB-C Port



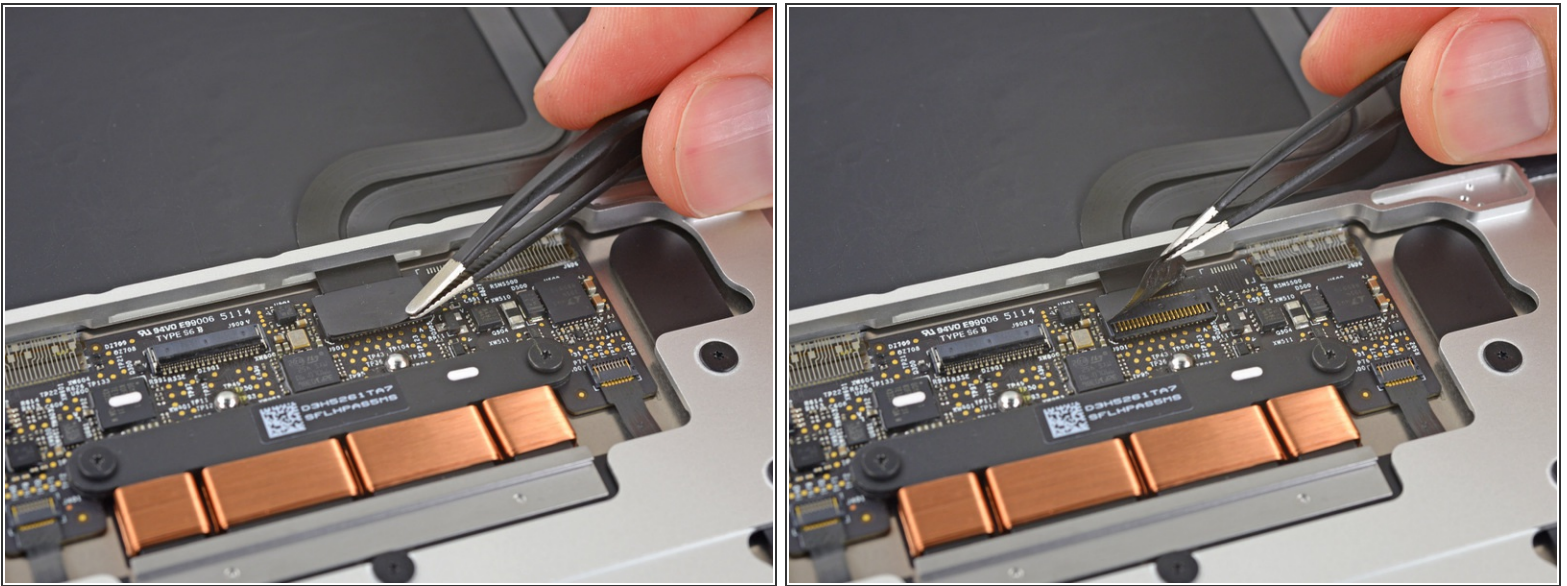
- Remove the single 2.9 mm T4 Torx screw securing the USB-C port to the upper case.

Step 37



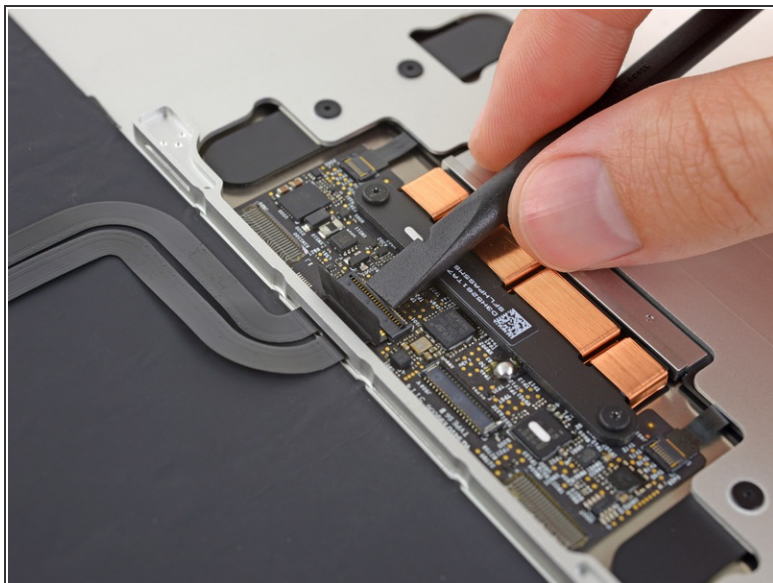
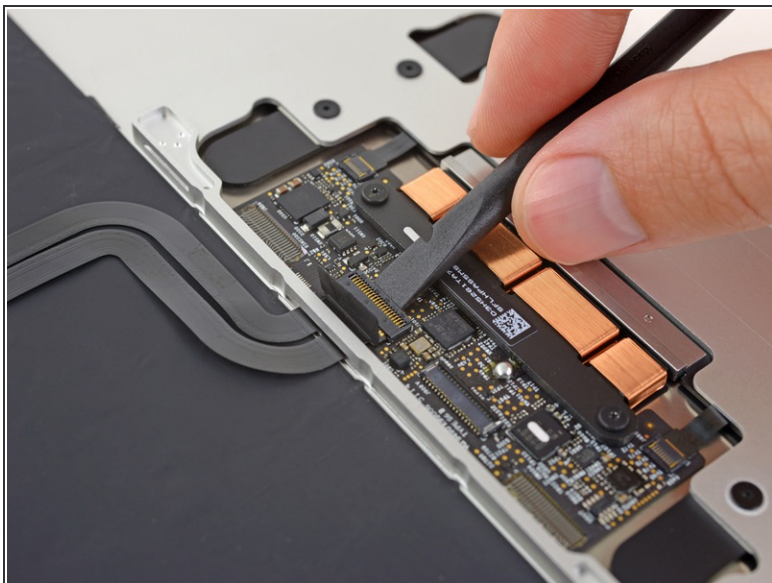
- Slide the USB-C port out of its recess in the upper case, and remove the USB-C port.

Step 38 — Trackpad Assembly



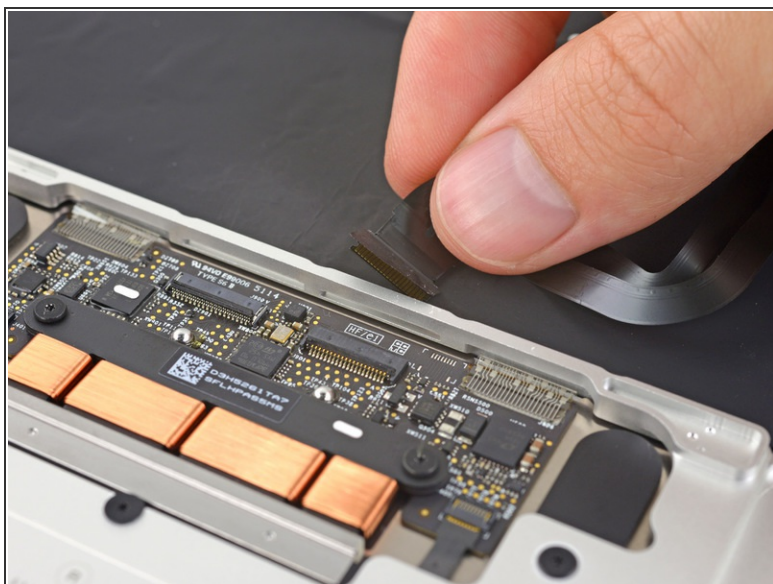
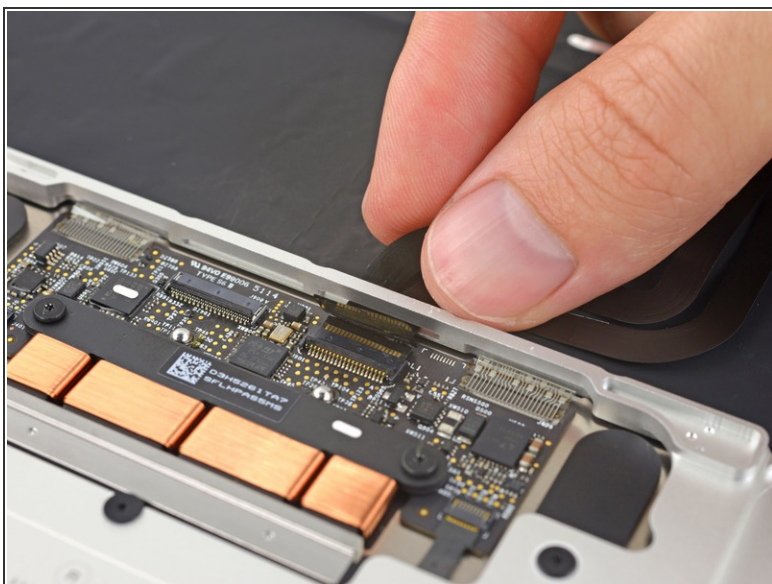
- Use a pair of tweezers to remove the tape covering the keyboard ribbon cable connector on the trackpad.

Step 39



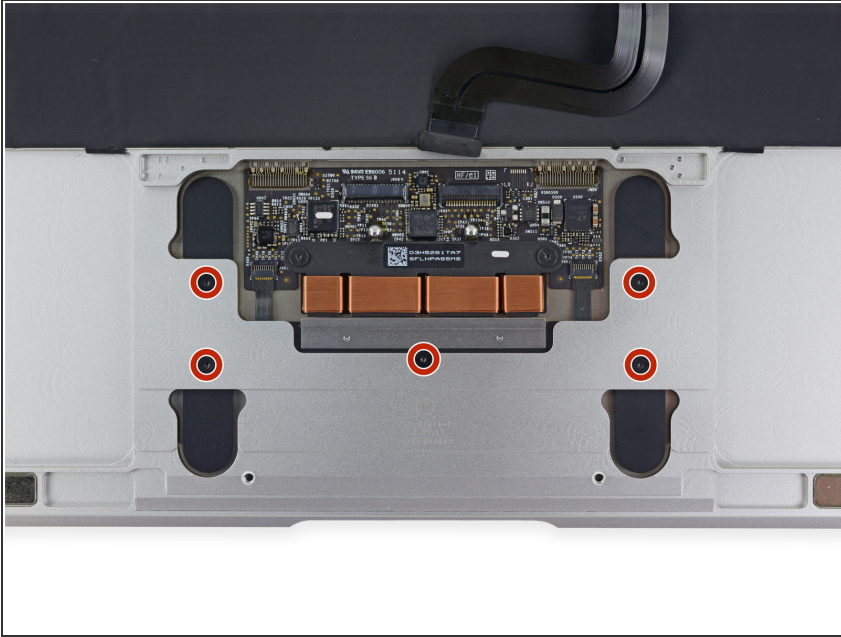
- Using a spudger, flip open the retaining flap on the keyboard ribbon cable ZIF connector.

Step 40



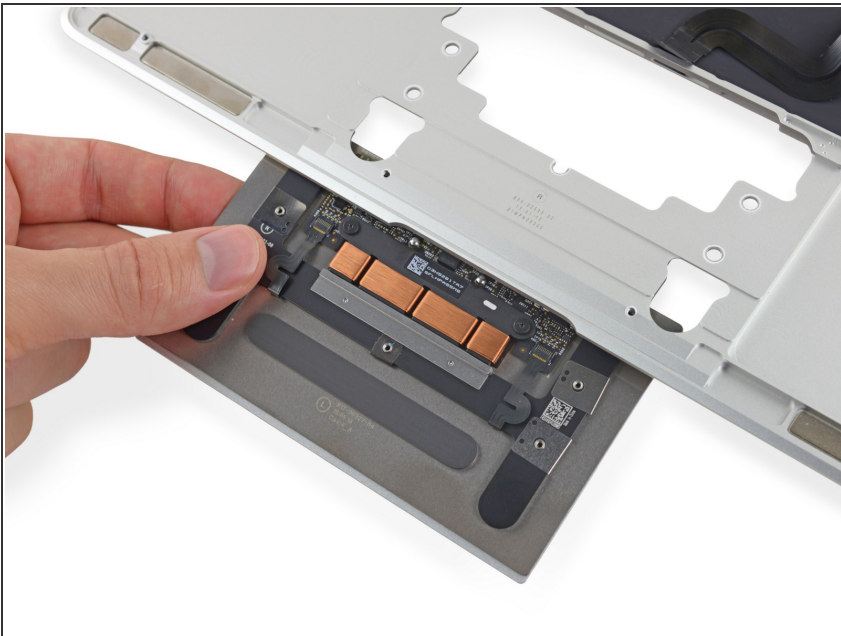
- Gently pull the keyboard ribbon cable out of its slot in the frame.

Step 41



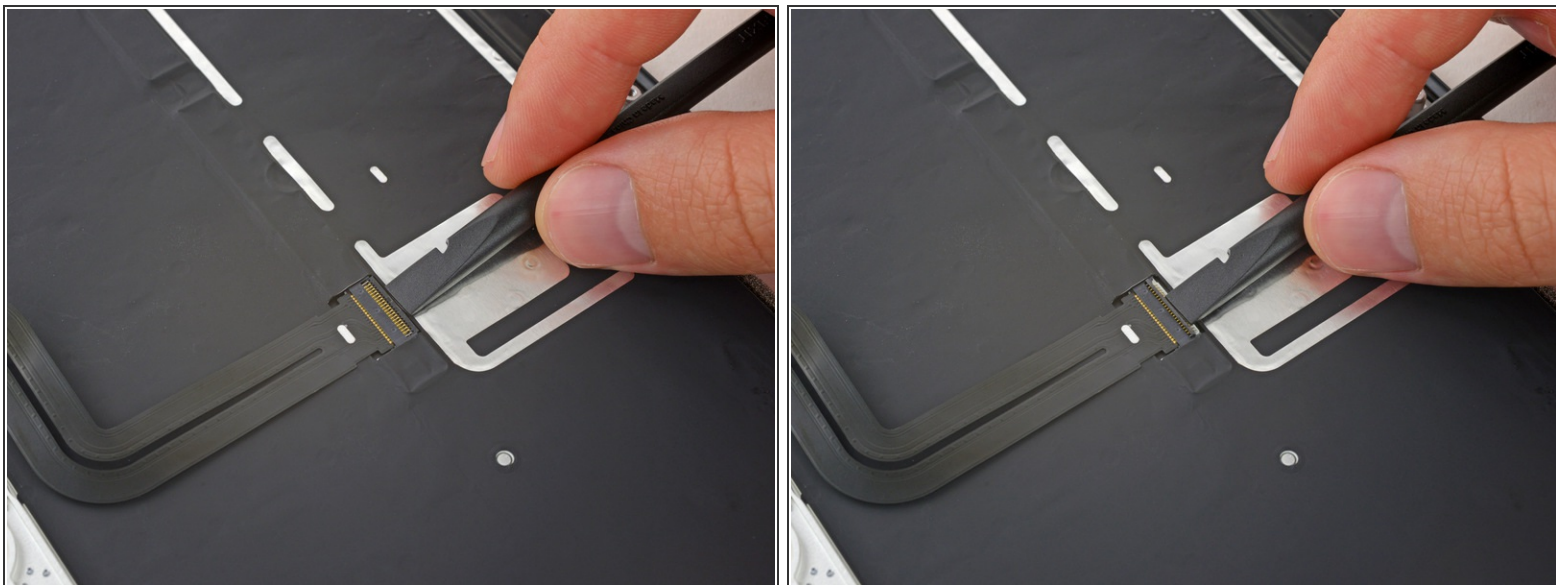
- Remove the five 2.5 mm T4 Torx screws securing the trackpad to the case.
- ⓘ Depending on which bit set you use, a T3 driver may fit better. Try both sizes, and use the largest driver that fits fully into the screw head.

Step 42



- Remove the trackpad assembly.
- ☑ Metal brackets on each side of the trackpad may fall away during removal. Be sure to position them as shown in the photo during reassembly.

Step 43



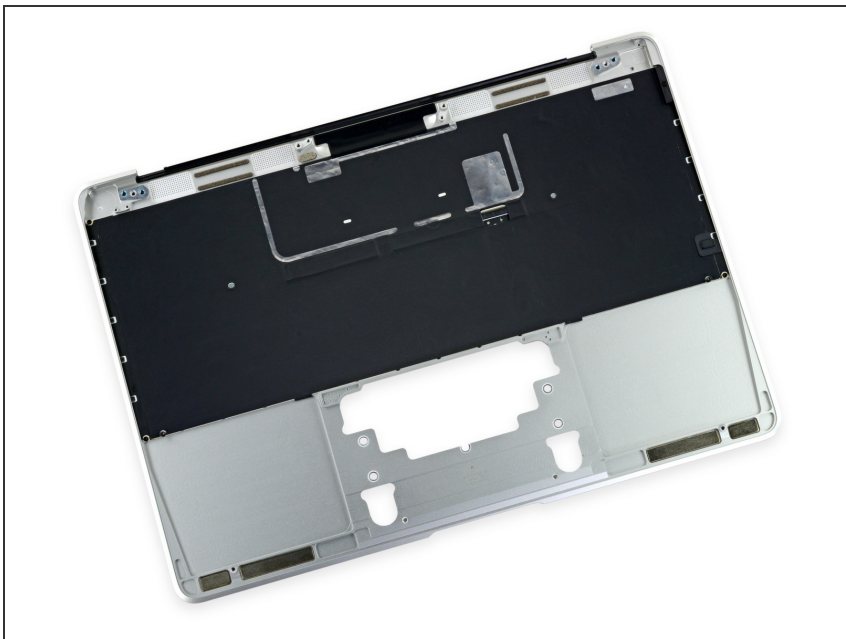
- Use a spudger to flip up the retaining flap on the keyboard ribbon cable ZIF connector.

Step 44



- Gently peel the keyboard ribbon cable up from the case, and remove the cable.

Step 45



- The upper case remains.

To reassemble your device, follow these instructions in reverse order.

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